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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/664,726	09/17/2003	Jacobus Haartsen	P17532-US2	4361
27045	7590	04/09/2008	EXAMINER	
ERICSSON INC. 6300 LEGACY DRIVE M/S EVR 1-C-11 PLANO, TX 75024			WIN, AUNG T	
			ART UNIT	PAPER NUMBER
			2617	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/664,726	HAARTSEN, JACOBUS	
	Examiner	Art Unit	
	AUNG T. WIN	2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 January 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-94 is/are pending in the application.
- 4a) Of the above claim(s) 16-20,32-82 and 85-89 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-15,21-31,83,84 and 90-94 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|----------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

Claims 16-20, 32-82 & 85-89 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Applicant's election was made without traverse in the reply filed on 1/4/2008 is acknowledged.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 2 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 2 recites the limitation "transmitting **the data**" in Line 2 of claim 2. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

1. Claims 1-11, 15, 21-25, 27, 28 & 31 are rejected under 35 U.S.C. 102(e) as being anticipated by Souissi et al. (US20020009158A1).

1.1 Regarding claims 1 & 21, Souissi discloses a method of communicating in a wireless ad-hoc network, comprising:

transmitting downlink data to a first receiver included in a wireless ad-hoc network over a first channel determined by the first receiver (master transmitting data to slave over a first channel determined by slave) [in which slave negotiate with master and determine the frequency channels for master to transmit data: 0008, 0009 & 0016]

and transmitting downlink data to a second receiver included in the wireless ad-hoc network over a second channel determined by the second receiver (master transmitting data to another slave over a second channel determined by slave since master can communicate with multiple slaves in a piconet) [in which slave negotiate with master and determine the frequency channels for master to transmit data: 0008, 0009 & 0016].

1.2 In light of 112 rejection stated above, Claim 2 is rejected for the same reason as stated above in claim 1 rejection since master can transmit data to different receivers in Bluetooth piconet [communications according to Bluetooth 1.0: 0009]

1.3 Claim 3 is rejected for the same reason as stated above in Claim 1 rejection.

Souissi discloses that the transmitting is preceded by: requesting identifiers associated with receivers in the wireless ad-hoc network because Souissi discloses that master and slave are communicates according to Bluetooth 1.0 discovery protocol: 0009].

1.4 Claim 4 is rejected for the same reason as stated above in Claim 3 rejection.

Souissi discloses that master is polling slaves according to Bluetooth 1.0 therefore, Souissi discloses receiving the identifiers associated with the receivers over a channel that is determined by a transmitter that requested the channel identifiers in order to discover the slaves within piconet as claimed.

1.5 Claim 5 is rejected for the same reason as stated above in Claim 3 rejection.

Souissi discloses that master is polling slaves according to Bluetooth 1.0 therefore, Souissi discloses transmitting a request for the identifiers over a broadcast channel to which the first and second receivers are configured to listen as claimed.

1.6 Claim 6 is rejected for the same reason as stated above in Claim 3 rejection.

Souissi discloses that master is polling slaves according to Bluetooth 1.0 therefore, Souissi discloses receiving a first identifier from the first receiver over a broadcast channel; and receiving a second identifier from the second receiver over the broadcast channel as claimed.

1.7 Claim 7 is rejected for the same reason as stated above in Claim 6 rejection.

Souissi ad-hoc system is configured to operate according to Bluetooth protocol and therefore, Souissi discloses master using the first identifier to transmit the data to the first receiver; and using the second identifier to transmit the data to the second receiver as claimed.

1.8 Claim 8 is rejected for the same reason as stated above in Claim 1 rejection.

Official notice is taken that the concept and advantage of transmitting transmitter identifier to the receiver is expected in ad-hoc network in order to identify the source node for message routing and transmission purpose.

1.9 Claim 9 is rejected for the same reason as stated above in Claim 1 rejection.

Souissi discloses that the first channels and second channels are unique to first receivers and second receivers as claimed i.e., first channels are selected to best suited for first receivers and second channels are selected to best suited for second receivers [0009-0012].

1.10 Claim 10 is rejected for the same reason as stated above in Claim 1 rejection.

Communications channels as disclosed by Souissi is unidirectional [different channels "split frequency operation": 0010].

1.11 Claim 11 is rejected for the same reason as stated above in Claim 1 rejection. According to Bluetooth protocol, Master is configured to transmit the data without identifiers associated with the different receivers (i.e., multicasting or broadcasting).

1.12 Claim 15 is rejected for the same reason as stated above in Claim 1 rejection. Souissi teaches that channels are defined by receivers independently [see claim 1 rejection] therefore Souissi discloses as claimed in Claim 15.

1.13 Claim 22 is rejected for the same reason as stated above in Claim 1 rejection because Claim 22 recites a system comprising means for executing steps substantially close to corresponding method of Claim 1.

1.14 Claim 23 is rejected for the same reason as stated above in Claim 1 rejection because Claim 23 recites computer program product configured to execute steps substantially close to corresponding method of Claim 1.

1.15 Claims 24 & 25 are rejected for the same reason as stated above in Claim 1 rejection because Claim 24 & 25 recites a receiver comprising processing steps substantially close to corresponding receiver's processing steps of Claim 1.

1.16 Claims 27 & 28 are rejected for the same reason as stated above in Claim 1 rejection because Claim 24 & 25 recites a transmitter comprising processing steps substantially close to corresponding transmitter's processing steps of Claim 1.

1.17 Claim 31 is rejected for the same reason as stated above in Claim 27 rejection. Souissi teaches that channels are defined by receivers independently [see claim 1 rejection] therefore Souissi discloses as claimed in Claim 31.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 12-14, 26, 29 & 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Souissi et al. (US20020009158A1) in view of Young et al. (US006791994B1).

2.1 Regarding Claim 12-14, 26, 29 & 30 Souissi discloses all the limitation as stated above in Claim 1 rejection but does not explicitly teach transmitting a spreading code with the data to the receiver. Young teaches ad-hoc network using CDMA communication method in which receivers are given a spreading codes [Column 9, Line

20-25]. Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention of made to modify the Souissi's method and system to transmit the data with spreading code as taught by Young. One of ordinary skill in the art at the time of invention of made to do to accommodate multiple receivers in one shared channel for efficient communication. It should be noted that the concept and advantages of claimed features i.e., spread spectrum communications method as claimed in 12, 13 & 14 are also well known to one of ordinary skill in the art at the time of invention of made.

3. Claims 83, 84, 90-94 are rejected under 35 U.S.C. 103(a) as being unpatentable over Souissi et al. (US20020009158A1) in view of Young et al. (US006791994B1), further in view of Rotzoll (US006760578B2).

3.1 Regarding Claims 83, the receiving device as modified above in would teach receiving composite data from transmitter but does not explicitly teach the receiving device comprising first receiver and second receiver to operate as claimed.

Rotzoll teaches claimed concept i.e., receiver device comprising low power receiver and master receiver to operate accordingly for reducing power consumption of the device [i.e., a first receiver configured to receive signal addressed to the electronic device; and a second receiver coupled to the first receiver configured to begin operation responsive to the indication that the data transmission is addressed to the electronic device [summary & Figure 1] [column 2, Line 45-column 3, Line 36].

Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention of made to further modify the receiving device with first and second receiver to operate as claimed. One of ordinary skill in the art at the time of invention of made to do this to reduce power consumption of the electronic device.

3.2 Claims 90 & 91 are method claims rejected for the same reason as stated above in Claim 83 because claimed method is substantially close to corresponding method executed by receiver as claimed in claim 83.

3.3 Claim 92 is rejected for the same reason as rejections stated above. Modified method would teach transmitting data to different receivers included in a wireless ad-hoc network over different channels because modified network is ad-hoc communication network.

3.4 Claim 93 & 94 are rejected for the same reason as stated above in Claim 92. Modified method teaches that data are transmitted over different channels to identified receivers (see rejections stated above) therefore, it would have been obvious to one of ordinary skill in the art that modified method would teach as claimed in Claims 93 & 94.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Haartsen et al. US006570857B1

Any inquiry concerning this communication or earlier communications from the examiner should be directed to AUNG T. WIN whose telephone number is (571)272-7549. The examiner can normally be reached on 8:30 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Duc Nguyen can be reached on (571) 272-7503. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Aung T Win/
Examiner, Art Unit 2617

/Duc Nguyen/

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Supervisory Patent Examiner, Art Unit 2617